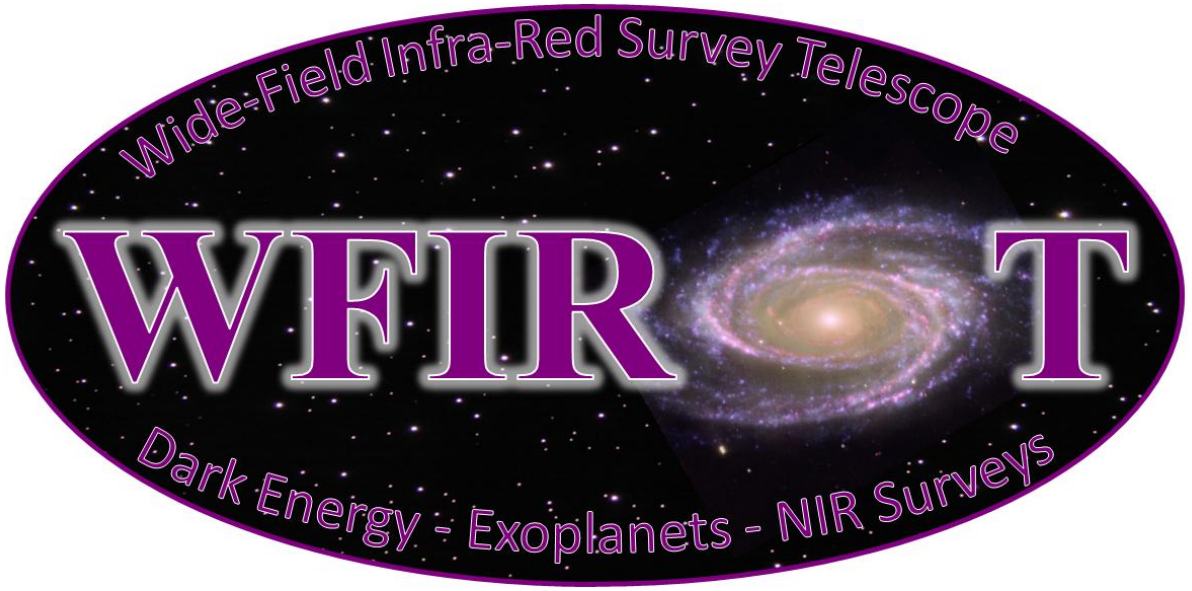
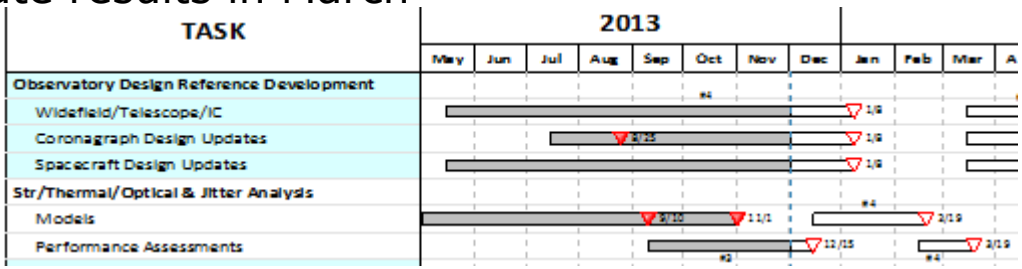


Project Overview

January 9, 2014

Overview Recent Accomplishments (1 of 3)

- Cycle #3 STOP analysis results and preliminary jitter assessment
  - Preliminary assessment of GEO thermal environment. Results favorable for widefield and coronagraph.
  - Early jitter results: significant work lies ahead but initial results meet widefield requirements and the combination of observatory pointing and the coronagraph's LOWFS indicate a jitter level that enables compelling exoplanet science.
- Cycle #4 design in process
  - Anticipate results in March



- 2.5 micron cutoff assessment
  - Telescope proxy subassemblies successfully tested at cold temperature without degradation; CTE and stress measurements of coupons in process.

Overview Recent Accomplishments (2 of 3)

- AFTA coronagraph architecture downselect
  - HQ selected Occulting Mask Coronagraph (HL & SP hybrid) as the primary architecture; PIAA-CMC is the back-up.
- Pointing simulation development
  - Closed loop simulation under development to assess pointing stability, slew and settle performance for survey. Will incorporate coronagraph tip/tilt as design evolves to provide better assessment of coronagraph performance.
- Requirements development
  - Level 1 and 2 efforts underway
- Initiated grism prototype fabrication effort.
- Payload I&Tcalibration
  - Maturation of the payload integration approach planned for later this year.
- Schedule & LCC: focused on budget process for nearterm

Overview Recent Accomplishments (2 of 3)

- IR detectors
  - Will discuss some very preliminary results from a few of the initial detectors fabricated.
  - Results look encouraging; a lot of work lies ahead.
- Coronagraph technology
  - Plan under development to mature technology by end of FY16.

chart A-9 as of 12/2 2:40p

AFTA Study Schedule 2013